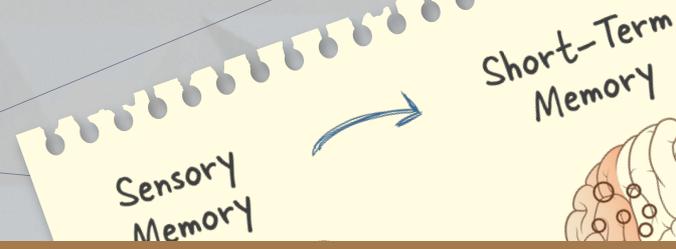
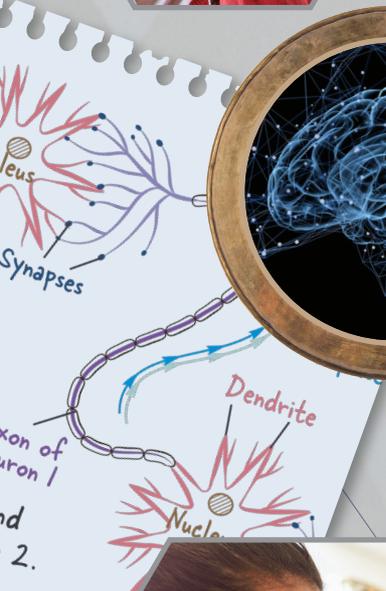


THE *amazing*
THING CALLED

MEMORY

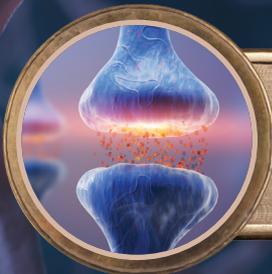
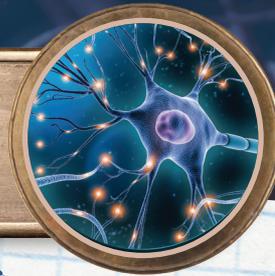
KELLEY WILLIAMS



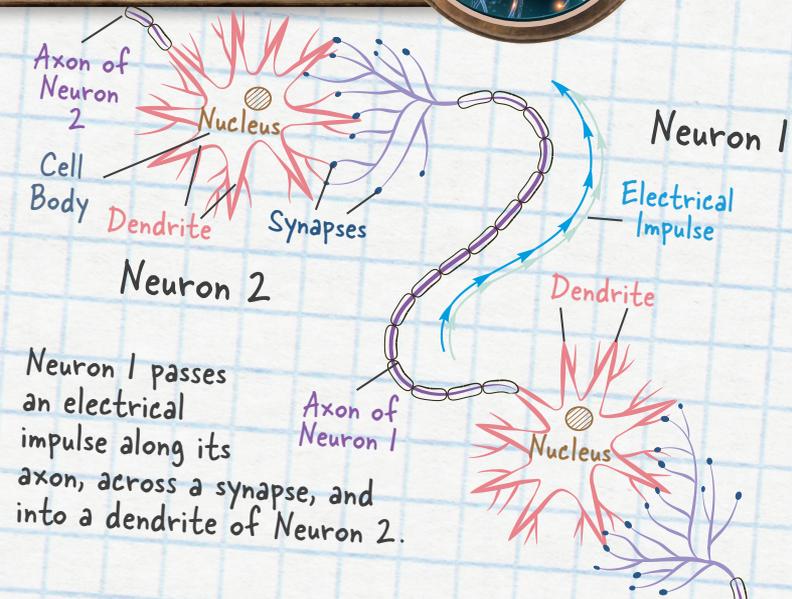
BRAIN ANATOMY

Neurons are the cells in your body that pass electrical impulses between each other across a gap called a **synapse**. These impulses are packaged in a chemical called a **neurotransmitter** and move from the end of one neuron, called the **axon**, through the synapse, and into a **dendrite** of the next neuron. In this way, neurons act as messengers from your brain to other parts of your body.

NEURON: the basic unit of the human body's nervous system; carries electrical impulses around the body



SYNAPSE: a tiny junction, across which one neuron passes electrical impulses to another neuron



“THE TRUE ART
OF MEMORY
IS THE ART OF
ATTENTION.”

SAMUEL
JOHNSON
BRITISH AUTHOR
AND POET

Let's head back to the farm and see what happens to the information our bodies take in about our environment. As you walk around, your senses are overwhelmed with scents, sounds, and sights. The enticing aroma of deep-fried apple pies wafts on the breeze while the sounds of cows bellowing and children playing in the corn maze reach your ears. You can see and smell the sheep, goats, and alpacas in their pens and hear the snorting of pigs.



SENSORY MEMORY:
raw environmental data coming in
from our senses; stored for just a few
milliseconds in the temporal lobe or
other parts of the brain



SENSORY MEMORY

TYPES OF LONG-TERM MEMORY

IMPLICIT MEMORY

Implicit memories are your unconscious memory—the things you know how to do without thinking about them. There are many types of implicit memories. Two of them are *procedural learning* and *classical conditioning*.



Procedural Learning

- Riding a bike
- Brushing your teeth
- Tying your shoes



Classical Conditioning (Learned Response)

- Fear of falling off the monkey bars because you've fallen off before
- Salivating when you smell your favorite food because you know how good it tastes
- Happiness when you hear holiday music





MEMORY RETRIEVAL:

Memory retrieval happens when we remember information that has been encoded and stored in our brains in the past. Usually, the same area in our brains is activated that was used when we formed the memory in the first place.



3. Memory Relearning

When you remind yourself of information you used to know, this is memory relearning.

Example: failing the test and having to study the information again, or “refreshing your memory”



Which method would you use to remember and tell your friend about the pigs?

amnesia

Everyone experiences normal forgetting, but there are extreme cases of memory loss that affect some people. Amnesia is a fascinating condition that can have severe and long-lasting effects on people's lives.

TYPES OF amnesia

Retrograde: cannot recall events that happened before the onset of amnesia

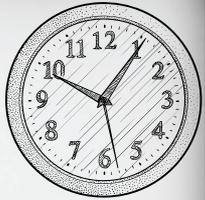
Anterograde: cannot form new memories of events that happen after the onset of amnesia

Infantile: cannot recall events from early childhood



amnesia: a level of memory loss beyond what's considered normal; often caused by damage to the parts of the brain that process memories

AMAZING FACTS ABOUT MEMORY



DÉJÀ VU

If you've ever had the sudden feeling that you've been in a place or experienced something before when you actually haven't, that's a

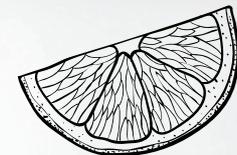
phenomenon called *déjà vu*.

Scientists aren't sure why this happens to about 60% of people.



THE POWER OF SCENT

More than any of our other senses, the memories of certain smells connected to emotional events are resistant to decay and interference. This is called olfactory memory, and you've probably experienced it before!





Procedural Learning

- Riding a bike
- Brushing your teeth
- Tying your shoes



THE *AMAZING* THING CALLED

MEMORY

How do we recognize faces we've seen before or remember what we wore yesterday? *The Amazing Thing Called Memory* answers these questions and more as it explores brain function anatomy, fascinating facts, and case studies of individuals with memory challenges.

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